Oligomerization of alkenes in an plurality of successive, heterogeneous catalyst zones

## 5 Abstract

Process for oligomerizing an alkene stream over a solid catalyst comprising sulfur and nickel, in which the oligomerization is carried out in two or more successive catalyst zones and the 10 molar ratio of sulfur to nickel in the first catalyst zone is less than 0.5 and that in the last catalyst zone is 0.5 or more and, in the case of further catalyst zones between the first and last catalyst zones, the molar ratio of sulfur to nickel in each catalyst zone is not less than that in the immediately preceding

15 catalyst zone, based on the main flow direction of the feed stream.

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